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ORIGINAL LECTURES.

LECTURES ON A CASE OF FACIAL MONOPLEGIA, ILLUSTRATING THE LOCALIZATION OF CEREBRAL FUNCTIONS AND LESIONS.

Delivered at the Philadelphia Hospital

BY DR. JOHN GUITÉRAS,

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(Continued from page 53.)

LECTURE III.

GENTLEMEN,—You will seldom find a lesion so well circumscribed to one portion of the motor area. This, of course, enhances the interest of our case. Especially is this true of lesions of the facial centre. I believe there is no case of the kind on record with a lesion so perfectly bound by the limits of this area. Facial monoplegias of central origin are seldom met with, and, as far as I know, have always been, as in the present case, left-sided, —the lesion being on the right side. Whether upon the left side this region has been, as it were, monopolized in man by the speech (projecting) centre is only a question of surmise. Certain it is that, as far as I know, the centre for the right facial region has never been demonstrated or distinctly localized in man.

When we come to study the other lesions of this brain, we have to lament some carelessness in the observation of the symptoms. The character of the cerebellar lesion proves it to be nearly of the same date as the facial one. Did our patient present any symptoms indicative of the cerebellar lesion? It is possible that I gave too much weight to the cardiac cachexia as an explanation of the muscular weakness. Let me tell you at once that the symptoms of cerebellar lesion are as uncertain as our knowledge of the physiology of this organ. Hemiplegia, vomiting, occipital (sometimes frontal) cephalalgia, disorders of vision, and changes in the optic nerves, may be present, but in other cases you may find only a slight deficiency of the muscular power such as presented by our patient; and this, I repeat, might have been due to the advanced cardiac cachexia. Yet I recall that our patient had some vacillation in his gait, and a tendency to come down on his heels when he walked, both symptoms rather characteristic of cerebellar disease. This exhuming of symptoms, as I may call it, is not very satisfactory; yet it would impair the record of the case not to mention them,—the more so, since I have been confirmed in my recollections by the gentlemen who studied the case with me.

Let us turn now to the most recent lesion,—that situated in the posterior part of the cerebral hemisphere. I call it recent because it presented all the appearances of a recent infarctus,—viz., those of blood-stasis. This was the only lesion found post mortem which could have given rise to the symptoms present in the last days of our patient's life.

We had, of course, grounds to believe that another embolus had occluded one of the cerebral arteries. But beware, gentlemen, how you attempt to localize a lesion at this early stage, especially when the symptoms are not well defined, or show a tendency to become graver, or to involve, step by step, different regions.

Two things were probable in our case. Either the blood was clotting behind the embolus, and other arteries of the motor area were being occluded by thrombosis, or else a new embolus had lodged in some other section of the brain. *This other section need not have been a portion of the motor area.* A statement, this, that opens a question in cerebral pathology which I have not thus far presented to you. How is it, you ask, if there is a motor area, that we may have a lesion elsewhere and yet producing the symptoms of hemiplegia which were present towards the end of our patient's life? We cannot doubt the fact. The case is before you. The fact is accepted by the supporters of and the opponents to the theory of localizations. I state it in the words of Bastian (On Paralysis from Brain Disease, page 50): "In other instances an injury to one portion of the cerebrum or cerebellum, besides giving rise to its own set of direct symptoms, may also produce symptoms of a stimulating or an inhibitory type upon more or less remote parts. And such 'indirect' effects or symptoms may occasionally be of a more obvious nature than the direct effects. They may be brought about by simple mechanical means, as by pressure, or may be occasioned in a so-called reflex manner under

the influence of structural or functional relationship, the precise nature of which we are often unable to fathom."

It is very important that you should know this, that you may avoid the errors into which have fallen many interpreters of such cases. I give you an example. A patient is admitted to a hospital unconscious and hemiplegic, and dies within four days of the admission. After so short a period of observation, with such evidences of general disturbance of the cerebral functions, Dr. H. D. Schmidt, of New Orleans, failing to find the lesion in the motor area or track, publishes the case as one disproving the theory of localizations.*

I regard then as indirect the symptoms of hemiplegia in our patient, and I may add that, had he lived, they would have disappeared rapidly.

The lesion we are discussing involves portions of the hemisphere the functions of which have not been determined. One part, however, the angular gyrus, belongs to what would seem to be the sensory area. Dr. Ferrier localizes the centre for vision in this convolution. It is to be regretted that I did not examine into the state of this special sense after the manifestation of the late symptoms in our case. I believe, however, that I may confidently state that he was not blind of both eyes.

One very interesting feature of this case is found in the pathological changes discovered in the medulla. They are not as far advanced as the first examination led me to suppose. There are some evidences of proliferation of the neuroglia, but the deficient character of the examination bars me from arriving at any positive conclusion, though I consider it pregnant with suggestions. I think I am justified in connecting this lesion with the respiratory symptoms of the patient,—the tidal or Cheyne-Stokes respiration. This symptom is met with in cases of cardiac failure, and also in some cerebral affections, especially meningitis. It is probable, it seems to me, that under all circumstances the phenomenon is due to some disorder of the respiratory centres. The engorgement of the vessels of the brain, consequent upon heart disease, may set up the proliferation of connective tissue in the medulla, a bulbar sclerosis, which is possibly the cause of the respiratory symptoms. I may state that in the course of disseminated sclerosis, intense dyspnœa may set in, indicating, with other features, the involvement of the medulla, through I am not aware that Professor Charcot describes any cases presenting this peculiar form of respiratory disturbance. I am anxiously waiting for the microscopical examination of the medulla in another case of heart disease, in which, during life, I observed the tidal respiration, together with other symptoms of descending sclerosis. I hope to make this the subject of my remarks upon some future occasion.

Now that we have concluded the study of this case, let me answer the question which is uppermost in the minds of you all,—What is the practical outgrowth of this theory of localizations? If I cannot give you a very satisfactory answer, it is certainly not the fault of the facts, but our own. Do not conclude, therefore, that these investigations are useless. It is because many of us are so apt to abandon them, it is simply because we do not know enough about these facts, that we fail to find at present numerous practical applications. Yet I hasten to tell you that most successful therapeutic measures have been adopted, more than once, upon the basis of this theory of localizations. Symptoms pointing to the seat of the lesion have enabled the surgeon to decide upon the operation of trephining, at times with the happiest of results. Verneuil, Lucas Championnière, have devoted particular attention to this subject.

Before parting, gentlemen, let me hope that I have at least interested you in this attractive and important subject. I recommend to you particularly the works of one author whose name is prominently connected with all these investigations. If I have done nothing else but to place in your hands, so to speak, the luminous writings of Professor Charcot, of Paris, I am willing to trust for the rest to the fascinating power of his genius.

* I hope I do not misquote. Such is my understanding of the meagre account given by him in the New Orleans Medical and Surgical Journal for October of 1878. I may also state, in regard to Case No. III. of the same paper, that the boundaries of the lesion are not given with sufficient accuracy, and that any conclusions seem to me unjustifiable. It should be remembered that lesions in the gray matter of the corpus striatum do not give rise to well-marked or permanent paralysis. They seem to be centres for the "organization" of movements solely. It is only when the internal capsule is involved that we have complete hemiplegia. No mention of the latter is made in the report.

For another source of error, quite frequently met with in cases of aphasia, I refer the reader to an article by Dr. Broadbent, "A Case of Left Hemiplegia and Hemianæsthesia with Loss of Speech," Lancet, November 17, 1877.

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Theories concerning the Physiology and Pathology of the Brain, by E. Dupuy, *Medical Times and Gazette*, September 29 and November 3, 1877.

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Pitres, Lésions du Centre ovale. Paris, 1877.

Landouzy, Localisation dans les Maladies cérébrales, 1878.

And numerous cases reported in the medical literature of the day.

ORIGINAL COMMUNICATIONS.

TREATMENT OF CHRONIC AND SUBACUTE RHEUMATISM BY THE USE OF THE SALICYLATES.

BY J. T. ESKRIDGE, M.D.,

Physician to the Catharine Street Dispensary.

THE efficacy of the salicylates in the treatment of acute articular rheumatism is corroborated by a host of observers. Prior to 1875, so far as I can learn, salicylic acid had not been employed for the cure of rheumatism. The Germans were the first to lead off in its use, both internally and externally. Drs. Stricker,* Riess,† Traube,‡ Katz,§ Hildebrandt,‖ Stenitz,¶ and Teuffell** were among the first of the Germans who gave the drug a fair trial in rheumatism and then published the results of their observations.

All the observers just quoted, with one exception (Riess, who seems a little sceptical), speak in high terms of praise of the use of salicylic acid in acute articular rheumatism.

During the years 1876–77, others on Continental Europe,†† in Great Britain,‡‡ and in America§§ added numerous testimonies to the value of salicylic acid and its preparations in the treatment of rheumatism.

In comparison with the large number of carefully-studied cases of acute rheumatism, but few of the subacute and chronic cases treated by the salicylates have been reported.

Dr. Stricker‖‖ says, "Salicylic acid is of doubtful utility in chronic articular rheumatism;" also, "It is not likely to be of use in gonorrhœal or diarrhœal rheumatism, or in the polyarthritis attending septicæmia." Dr. Stenitz¶¶ says, "I have used it in several cases of chronic articular rheumatism, but without effect." Mr. Napier,*** in speaking of salicin in subacute rheumatism, says, "Salicin affords some relief, but its action in such cases has given uncertain results in my hands." Among the conclusions of an article on "Salicin and Salicylic Acid in Rheumatism,"††† we find this: "In the low form of acute and in chronic rheumatism its beneficial action is extremely doubtful." Lépine and Jaccoud think it has but little power over chronic forms of rheumatism.‡‡‡

On the other hand, Germain Sée gives in his memoir§§§ twelve cases of chronic rheumatism either cured or improved by this agent. He states, "The articular tumefactions considerably diminish, and the motions of the joints may become free even after years of pain, rigidity, and immobility, on the condition that the bony lesions have not become too deep-seated or too advanced." Prof. Senator‖‖‖ speaks favorably of its use in chronic rheumatism: "In several cases of chronic rheumatic inflammation following rheumatic fever, as well as in other cases of rheumatoid arthritis, and in two cases of true gout, salicin rendered decided service, not only in reducing the pain (sedative action), but

* Berliner Klinische Wochenschrift, Nos. 1 and 2 (1876), and February 21, 1876.
† Same journal, No. 7, 1876.
‡ Reported by Stricker in same journal.
§ No. 4 of the Deutsche Medicinische Wochenschrift.
‖ Same journal, No. 7, 1876.
¶ Allgemeine Medicin. Central Zeitung, March, 1876.
** Würtemberg. Med. Correspond. Blatt.

** See abstract in the London Lancet for December 1, 1877, of the discussion in Paris, by Sée, Oulmont, Hérard, Mussey, Ferrard, Beaumetz, Desnos, Bouchardat, Jaccoud, Lépine, and others.
†† See paper by Dr. E. H. Jacobs, West Riding Med. and Chirurgical Society, Charing Cross Hospital, and other London Hospital Reports.
‡‡ Boston City Hospital Report for 1876, etc.
§§ Berlin. Klinische Wochenschrift, Nos. 1 and 2 (1876), and February 21, 1876.
¶¶ Allgemeine Medicin. Central Zeitung, March, 1876.
*** Practitioner for June, 1876.
††† Lancet, November 3, 1877.
‡‡‡ Lancet, December 1, 1877.
§§§ Med. Times and Gazette, July 21, 1877.
‖‖‖ See abstract of lecture in Med. Times and Gazette, August 4, 1877.

also in reducing the swelling of the parts." Sée gives other records to prove its efficacy, —one record* of five of subacute, and another† of thirty-three cases of the same form, all successfully treated by salicylic acid or its compound. Of the record of thirty-three cases, he says, "There was not one case which was not cured in two or three days." Among the French, confirmatory opinions have been expressed by MM. Oulmont, Guéneau de Mussey, Ferrard, Beaumetz, Desnos, Bouchardat, and others. From the conflicting opinions respecting the value of the salicylates in chronic and subacute rheumatism, one would not be inclined to trust many cases solely to this agent. I should scarcely have given the salicylates a fair trial in this form of the disease, had not the various remedies ordinarily used in its cure so signally failed, in my hands, of giving relief. Iodide of potassium has given me negative results in one hundred cases of chronic and subacute rheumatism this year at the Catharine Street Dispensary. I have clinical notes of one hundred and sixty-five cases of these forms of rheumatism variously treated. Some were given no internal treatment, and these seemed to do as well as those treated by the iodide of potassium.

The whole number of cases treated with the salicylate of sodium is twenty-two, the clinical history of a few of which I will first give, and then the conclusions at which I arrived.

Case I.—E. M., colored, female, æt. 79, stated that she had suffered for four years with subacute rheumatism, affecting nearly all the joints, and had received all the usual treatment. She was ordered one and a half drachms of the salicylate of sodium daily, in six doses.

Second day.—She stated that the pain was nearly gone, and that her joints would bend much better. Locomotion was still very poor. Ordered one drachm of the salt to be taken during the next twenty-four hours.

Third day.—Pain gone, feels much better, sleeps well, appetite and locomotion improving. Ordered three drachms of the salicylate to be taken in four days. She was not seen again for nearly three weeks, when she again came for more of the salicylate of sodium. She stated that after she took the salicylate last ordered, she felt so well that she thought it useless to return for more medicine, and had been out washing for several days, when, on getting her feet wet, she took a severe cold, and the rheumatism again returned. She was again given the salicylate of sodium, with almost complete relief in three or four days, locomotion being better than it had been for some years.

Case II.—C. G., female, æt. 33, had been troubled with pain and stiffness in her shoulder-joints and wrists for many months; no heart trouble, never had had acute rheumatism, no fever nor swelling in the affected joints. She first came to the dispensary on March 28 of this year, when she was given tonics, and an alterative consisting of iron and cinchona and the iodide of potassium. On this treatment she was kept till April 28 (just one month), without receiving any appreciable benefit. At the last date she was ordered a drachm of the salicylate of sodium daily for four days, when the pain and stiffness in the joints had been entirely relieved. She was now ordered ten grains of the salt four times daily for a week, to prevent relapse. On June 20 she again returned, complaining of some pain in the joints, which was promptly relieved by the timely use of the salicylate before given.

The next two cases are similar, in many respects, to Case II., but, as they serve to illustrate the good effects of the salicylate, I shall briefly give their history.

Case III.—E. H., female, æt. 20, a factory-girl, and suffering from pain and stiffness in the right hip, left knee, and ankle-joints, with some swelling. She was treated from April 16 to May 24 by liniments, iodide of potassium, iron, and cinchona, without any apparent benefit. On May 24 I ordered one and a half drachms of the salicylate of sodium to be taken the first day, and on the two following days a drachm each. On May 27, the fourth day after beginning with the salicylate, she said the pain had entirely gone. She was ordered ten grains of the salicylate four times daily. On the 31st she reported herself well.

There is a form of pain, discoloration, and swelling of the knee-joints, somewhat resembling rheumatism, and by some so classed, over which the salicylates have no control. It resembles rheumatism in some respects, yet in others it is unlike it. I suspect it to be specific in its nature. I have seen only three or four of such cases, the clinical record of one of which will illustrate what I have said.

Case IV.—Mrs. H. B., æt. 40, has three children of rather a scrofulous habit. May 7, 1878, she suffered from pain and soreness in both knee-joints, rendering her almost unable to walk. She had slight fever, attended by great depression; appetite poor, bowels regular, pulse rapid, small, and compressible.

* London Med. Record, January 15, 1877 (abstract).
† Lancet, December 1, 1877 (abstract).

She stated she had been troubled with pains in her legs for several months, which were at times worse at night. There were no sensitive spots or nodes over the crest of the tibia, nor were there other symptoms pointing to a specific trouble. On examining the knees, I found a red and swollen spot about one and a half inches in diameter over the anterior portion of the internal condyles of each femur, just internal to the patella. The swollen and discolored spots were very sensitive to pressure; pain of late so great as to prevent sleep at night; no history of a blow or of any injury to the affected parts. While the discolored parts were very hard and sensitive, with no evidence of suppuration, other portions of the joints were tolerant of manipulation, and by striking forcibly upon the heel, the legs being extended, no pain was complained of. The salicylate of sodium in large doses failed to do her any good, but under the use of iodide of potassium her symptoms soon subsided.

In an article in the London *Lancet* for November 3, 1877, it is stated that the rheumatic cases in which the salicylates seem to have little or no good effect have for their "main features a comparatively low temperature (about 99°), little or no redness of the affected joints, or, if present, the redness is in more or less circumscribed patches, severe pain, accompanied by great depression." The symptoms just quoted are those that were most prominent in Case IV., just given. These may be cases of pure rheumatism, but the effect of the iodide on them is such as is usually found in cases of a specific nature only. A much more extensive observation is needed to determine their true nature.

The good effects of the salicylates have been mostly praised in articular rheumatism, but that they are not wholly void in the treatment of the muscular variety the following case will show.

Case V.—J. D., a strong, healthy-looking Irishman, is a frequent sufferer from severe and obstinate lumbago. I gave him one and a half drachms of the salicylate of sodium in the beginning of one of these attacks: in twenty-four hours his pain was gone.

When the joints are distorted in chronic rheumatism and probably disorganized, the salicylates have but little effect, except sometimes in relieving pain.

Without a further recital of clinical cases, I will, in conclusion, only say, of twenty-two cases of chronic and subacute rheumatism treated by the salicylate of sodium, in not one did the medicine have only negative virtues, but in every instance its action was rapid. Especially was this so in relieving the pain. The more acute the case, the more decided were the effects obtained. In the most chronic cases the medicine under discussion either promptly ameliorated or entirely relieved the pain; and in the subacute variety, by continuing its administration for several days or even weeks after all the symptoms of rheumatism had passed away, a recurrence of pain on re-exposure to cold and damp was of rare occurrence in those cases that I was able to keep under observation. How long this immunity from the disease will last I am not prepared to say. That an agent which is so prompt in relieving the distressing symptoms of the disease may, after persisting in its use for a considerable length of time, aid in eradicating it from the system, I do not doubt. For its permanent effects to prevent relapse, I am in the habit of giving ten grains four times daily, for weeks after all symptoms of the rheumatism have passed away.

CASE OF SNAKE-BITE.

BY A. IVINS COMFORT, M.D.

EDDIE JEFFRIES, 6 years of age, weighing about fifty pounds, was bitten by a rattlesnake on the dorsal aspect of the right hand at nine o'clock A.M., August 31, 1878.

The lad ran home, only a few yards distant, screaming in great terror. After the lapse of fifteen minutes, whisky was administered freely, even to inebriation, and monosodic carbonate (bicarbonate of sodium) moistened in whisky applied to the wound. Strong aqua ammoniæ, however, was substituted for the above mixture as a local application shortly afterwards.

A bandage, too loose, however, to be effective, was applied to the arm immediately above the elbow.

The parents failed to send for me until some hours later, so that when I arrived it was about twelve o'clock (12 M.).

Four well-marked punctures, two of the poison-fangs of the upper jaw and two of the principal fangs of the lower jaw, were plainly visible. These punctures were apparently about two lines in diameter; they were equidistant, occupying the relative position of the angles of a quadrangle whose sides would measure an inch and two lines. In the immediate vicinity of the bite there was little or no swelling, gangrene of the part having taken place at once, yet the hand and forearm four inches above the wrist were greatly swollen and of a livid color, with a polished appear-

ance; the fingers were semi-flexed and separated. The lad was delirious, his hearing was somewhat obtunded, his eyes were closed, the upper eyelids and the superior rectus muscles were paralyzed, the pupils were slightly dilated and insensible to light, and vision for the time being seemed to be wholly destroyed. The eye was directed forward, but upon the forcible opening of the lids was directed externally to exclude light, not upwards as is usual.

The facial aspect was that of composed indifference, with marked prostration, apparently devoid of suffering; the lips and cheeks presented about their usual redness. There was no pulse at the wrist, yet by auscultation the heart's action was found to be rapid, about one hundred per minute, its impulses feeble, and the interval between systole and diastole wonderfully brief. The respirations were about thirty per minute. The skin, particularly at the extremities, was dry and cool, though not cold. The temperature, taken with some difficulty in the axilla of the left side, recorded 96¾° Fahr.

The patient suffered from repeated attacks of emesis, vomiting at first undigested particles of food mixed with a green fluid, subsequently a thick vitreous mucus resembling the white of an egg slightly tinged with yellow. Micturition, shortly after my arrival, for a time became frequent, but subsequently subsided, the patient finally passing urine of a very light color and scanty in quantity. A watery diarrhœa was established about the same time, with tormina and tenesmus. At one o'clock P.M. thirst became imperative: this was freely indulged.

The bandage, immediately upon my arrival, I converted to a "Spanish windlass," and secured so tightly as effectually to occlude the vessels of the arm. The swelling as early as one o'clock P.M. had reached the bandage, and here seemed to be securely arrested, though well-marked livid lines followed the course of the superficial cutaneous vessels above the bandage, showing the probable disintegration of those vessels, with extravasation of blood.

Great restlessness, accompanied with feeble jactitation, was a prominent symptom in the case from twelve o'clock M. to three o'clock P.M.; this, however, was alternated with periods of quiet repose; occasionally feeble, plaintive screams were uttered deliriously. Paralysis of both of the upper extremities, particularly below the elbows, and in a more marked degree of the lower extremities, was plainly manifest. My patient made repeated ineffectual efforts to stand, but, as often as he raised himself upon his elbows and knees, or knelt erect, he fell helplessly upon his side.

I regarded the case from the first as hopelessly fatal, from the following circumstances. Against a lethal quantity of ophidious venom there is, unhappily, no known antidote. Of the eighty remedies used as such, all are inert. The age and size of the patient were such as to preclude all chances of recovery.

The snake was of the largest of his species, nearly four feet in length, and apparently in full vigor of health. In consequence of the continued heat of summer, snakes are known to possess an abundant supply of virus; in the spring, after hibernating or during the period of desquamating, they are more harmless and less aggressive.

It is stated on high authority that the fatal cases of snake-bite are the exception, and not the rule. The escape from death is usually due to the fact that sometimes the convexity of the injecting fangs strikes the victim, the points are retroverted, and the virus is discharged into the mouth of the snake, while the principal and opposing fangs of the lower jaw, comparatively harmless, inflict the wound. Again, a snake may have exhausted its virus upon a recent victim, and consequently have become comparatively harmless, or it may be deficient in virus in consequence of ill health. Again, a snake may be rendered comparatively harmless in consequence of having broken off the injecting fangs in a previous encounter. The character of the punctures and the gangrene of the part in the immediate vicinity of the wound effectually eliminated from the premises the existence of the above circumstances.

As three hours had elapsed after the infliction of the injury and prior to my first visit to my patient, excision or cauterization of the wound was unnecessary. I therefore administered a hypodermic injection of ten minims of aqua ammoniæ fortior diluted with water, and ordered thirty minims of the aromatic spirit of ammonia to be given every hour, and also one-half ounce of whisky. I also ordered one-half ounce of new milk every hour as a nutrient. Under this treatment reaction was established, the pulse returned at the wrist of the unaffected side, and vomiting ceased. At three o'clock P.M. my patient expressed himself as feeling better, and complained for the first time since my arrival of pain in his hand.

At eight o'clock P.M. the arm was more swollen; large blebs had formed in various places on the injured limb, the skin had burst at the flexure of the elbow, and extravasated blood was escaping from the arm, though the quantity was small. His nervous forces had recuperated to a remarkable degree, the restlessness and jactitation had quite ceased, and the sense of taste was normal as from the first.

Vision and hearing had again become normal, and intellection had been re-established, as in health, though he was disposed to sleep: this I encouraged rather than prevented. Respiration, however, remained at thirty per minute, as at mid-day, and the pulse again, having nearly disappeared at the wrist,

was still beating at its previous rate, one hundred per minute; his temperature, taken in the axilla of the left side, was 97⅘° F.

He complained of not a little pain in the breast, and in my absence, his mother informed me, he twice suffered from convulsions, which, however, were not violent, and at four o'clock, in violation of my orders, she loosened the bandage, because, as she alleged, "his hand pained him so." This had the effect of permitting an additional increment of virus to enter the circulation from the affected limb.

At half-past nine P.M. I left the house, and on my visit the following day I learned that the lad had died at half-past two o'clock A.M., September 1.

Though death from snake-bite usually takes place from apnœa, I am of the opinion that it was caused by syncope in this instance, as had respiration diminished in frequency or become labored—the result of paralysis of the pneumogastric, phrenic, and respiratory nerves—it would have been observed by the family: on the contrary, they state that the patient "went off" suddenly, "all at once," when they were least expecting it.

I failed to obtain an autopsy, but the face bore a slight hue of saffron, and the posterior margin of the ears was livid, as were also the right hand and arm.

FORT WALLACE, KANSAS, September, 1878.

GLEDITSCHIN—A NEW ALKALOID.

BY B. F. LAUTENBACH, M.D.,

Assistant to Prof. Schiff.

SOME time since, I commenced a series of investigations to determine the effect of various extracts of the fruit of the Gleditschia triacantha and G. ferox, cultivated trees growing in the parks in the vicinity of Geneva. The ripe fruit of the G. triacanthæ was formerly, and perhaps is still, used in the northern United States for the preparation of a liquor.

In these investigations it was found that a watery, alcoholic, or ethereal extract of the ripe fruit and seeds of these trees exerted almost no toxic influence on frogs and toads. When, however, an alcoholic extract of the unripe seeds and the portions of the fruit immediately surrounding these* was used, very active poisonous effects were observed. In from five to twenty minutes the frogs were in a profound state of stupor. No reflex movements could be excited by any of the known means, though at that time the motor nerves still remained irritable. This loss of reflex activity was not due to loss of function of the sensory nerves through the direct action of the poison on these structures, as, after ligature of all the blood-vessels of a limb, irritation of that limb failed to produce reflex movements when the animal was poisoned with the extract. The heart continued to beat for hours after these symptoms appeared. If a not too large dose was given, the animals recovered after having been in this state for twenty-four hours.

The question now was to determine the nature of, and isolate, the principle on which the activity of this extract of gleditschia depends.

Were it a glucoside, it would almost certainly be extracted by water. Watery extracts, hot or cold, are, however, inert if no alcohol was used in their preparation. Again, a solution of the extract from which the coloring-matters, the tannic acid, and the inorganic salts have been removed, does not, as do all glucosides, yield glucose when boiled with dilute acids.

Further investigations showed the active substance to be an alkaloid. The manner in which I first isolated it is as follows. The unripe seeds and portions of the fruit surrounding them were bruised and mixed with absolute alcohol and absolute ether in the proportion of four parts of the former to one of the latter. The mixture was then heated over a water-bath in a Florence flask (in the cork of which a long glass tube had been placed to allow the distillate to cool and run back into the flask) for eight hours. The mixture was then filtered, and a small portion of the filtrate was injected into a frog. It was found to be very active. To get rid of the tannic acid the filtrate was now treated with gelatin and again filtered. To the alkaline filtrate dilute sulphuric acid was added until the solution became neutral. A dense white precipitate was now seen to fall. The supernatant liquid was removed, and the remainder was allowed to crystallize spontaneously. The crystals were dissolved in water, and lime was added to remove the sulphuric acid.† The resulting mass was again filtered and allowed to crystallize.

The crystals which were obtained were

* The remainder of the unripe fruit is practically inert.

† Alcohol was then added.

elongated rhombs, almost completely insoluble in water, but readily soluble in alcohol. They leave no "ash" when heated on platinum. The alcoholic solution is alkaline, and with dilute sulphuric acid (1–15) gives a dense white precipitate, which microscopically was found to be composed also of elongated rhombic crystals, whose angle, however, was much smaller than that of the gleditschin crystals. Both the original crystals and the sulphate produced in frogs and toads the symptoms before described. The sulphate is soluble in water.

This process I have since modified by adding lime to precipitate the tannic acid with the alcohol and ether. This is preferable to the gelatin method, as the latter takes some of the alkaloid along with it.

Gleditschin, as I propose to call this new alkaloid, forms salts with sulphuric, nitric, hydrochloric, acetic, and tannic acids. All these salts crystallize in modifications of the rhomb.

The facts which I have determined thus far respecting the physiological action of this substance are here briefly given; in a later publication this subject will be treated more fully.

Locally applied to the blood of mammals, like saponin, it causes the blood-corpuscles to disappear. These corpuscles, however, later reappear.

The heart of frogs continues to beat long after all other signs of life have disappeared.

The vagi of frogs poisoned with gleditschin still retain their inhibitory action on the heart.

The first symptom produced in frogs is a state analogous to sleep. Following this, rapid abolition of reflex activity takes place, and respiration ceases. The galvanic irritability of the nerves is much diminished.

PUSTULAR ERUPTION IN PYÆMIA.

BY COMEGYS PAUL, M.D.

IN an extract from a paper upon this subject, published in the *American Journal of the Medical Sciences* for October, the writer concludes that a pustular eruption is not only a rare occurrence in cases of pyæmia, but "is the *avant-coureur* of approaching death." The literature of the subject would seem very certainly to warrant this conclusion. The few recorded cases are, therefore, perhaps of more interest than value, unless pustules may be of importance in diagnosis in connection with effusion within joints, where they may help to avoid the error of mistaking pyæmia for articular rheumatism when other grave symptoms have not been sufficiently apparent, and in the absence of traumatism.

A case of pyæmia in which pustular eruption was prominent came under my observation last March, the more observable features of which were nearly, if not precisely, similar to those of one reported by the late Dr. Anstie in the *Lancet* for January, 1870.

G. R., æt. 26, colored, noticed an erysipelatous inflammation in the penis and scrotum, for which the ordinary remedies were used. The next day he had a slight chill, accompanied with a rapid and feeble pulse and a general feeling of discomfort. On the third day, pain and swelling in both elbow-joints followed, accompanied with vesicles and bullæ upon the thighs, abdomen, and arms. On the fourth day, the temperature rose to 103°, and many of the bullæ had developed into pustules. In the mean time the circumscribed erysipelas about the genitals had disappeared, and the patient now became delirious and exhibited signs of excessive prostration. The effusion within the joints increased, and the pain upon the slightest movement would seem for the moment to restore consciousness. During this time the pustules were more or less numerous, not confined to any particular part of the body, and were in various stages of development. Death occurred on the following day.

The post-mortem appearances were not unusual. Hypostatic congestion over a limited portion of the lungs co-existed with purulent deposits. Secondary abscesses in the liver were more clearly defined than the pulmonary patches. The right elbow-joint contained a flocculent, puriform liquid, as did the left, but in less abundance. The other organs were not examined. There was more or less extravasation of blood, or ecchymosis, over the lower part of the back.

Before this attack the subject was in apparently robust health, had a well-developed physique, and was unusually muscular. The continued and increasing prostration during the course of the disease

was on this account the more noticeable. The cause of the erysipelas from which this disease resulted has not been made apparent. No previous illness or constitutional disease or unfavorable sanitary conditions can be made to account for it.

October 17, 1878.

HISTOLOGY AS AN AID TO THERAPEUTICS.

CONTRIBUTIONS FROM THE HISTOLOGICAL LABORATORY OF THE UNIVERSITY OF PENNSYLVANIA.

NO. I.

BY JOS. G. RICHARDSON, M.D.,

Demonstrator.

THE generation of old-fashioned doctors, members of which, as their patients will reverentially inform you, are "good in fevers," or "first-rate in dyspepsy," is frequently disposed to undervalue the services of our present invaluable instruments of precision, and loudly calls for examples of the direct practical benefit which all the new-fangled histological and pathological investigation has conferred upon the medical profession. Towards meeting this not unreasonable demand the following suggestions are submitted, and, insignificant as they seem, I trust they may at least serve to stimulate effort in the right direction.

Any one who has witnessed the action of dilute acetic acid upon the ciliary movement must have observed the surprising revival of the motion, after it had become almost extinct, under this influence; and hence it occurred to me to examine the effect of exposing the ciliated cells to an atmosphere charged with the fumes of vinegar. This is readily accomplished by attaching a small glass tube with sealing-wax to each end of a microscope-slide, and inverting a cover, charged with ciliated epithelium from the beard of an oyster, upon Stricker's putty ring, as directed by Dr. Schaefer, following Prof. Stricker's ingenious method. Then, when all is arranged beneath the objective, draw, by means of a rubber pipe held in the mouth and attached to one tube, the vapor of boiling vinegar furnished by a funnel and another rubber tube to the small glass pipe at the opposite end of the slide.

It is easy to see, after having once thought of it, that the same potent stimulus to the action of the cilia beneath the glass cover of a slide thus arranged must affect cilia in their normal position upon the mucous membrane of a patient who inhales the fumes of vinegar. Therefore, as this wave of ciliary movement has so much to do in bringing out the mucus (which, in bronchitis and similar diseases, is poured forth to excess) and thus freeing the clogged-up air-passages, we have, I think, in such a histological observation both an explanation of the old woman's cure for a cough in hot vinegar, and a strong incentive to use it—in spray from an atomizer or otherwise—more persistently and systematically in bronchitis and allied disorders. It would also guide us to employ it in opium-poisoning, in paralysis, and in all prostrating diseases when the lungs begin to fill up, probably in part as a consequence of enfeebled ciliary movement.

The intractable nature of chronic Bright's disease is so much a matter of universal experience that even a faint hope of greater success in its cure is worthy of consideration. One chance of successful treatment seems to lie, I think, in cutting off the supply of fat (for example, by an exclusive skim-milk diet) at the outset of the attack; and for this an early diagnosis of incipient fatty degeneration is necessary. Frequent observation of the remarkable power which osmic acid has of blackening and thus detecting extremely minute globules of fat, suggested the idea that this reagent might be advantageously employed in recognizing fatty metamorphosis in its commencement, and on trial I have found that osmic acid does enable us to discover in epithelial cells particles of oil so small as ordinarily to elude detection. The acid solution in water should be used, of the usual one per cent. strength, and this preparation, when secluded from the light, keeps perfectly well for months or even years. Its value in recognizing fatty degeneration elsewhere, as, for example, in the voluntary muscles, the heart, etc., is obviously great.

A CASE OF PARTIAL PLACENTA PRÆVIA.

BY SEGUNDO ZERTUCHE, M.D.

MRS. S., aged 25 years, married, in the eighth month of her third pregnancy, September 1, 1878, presented, at my first visit, some symptoms of general distress, and stated that she had had a hemorrhage about the end

of the sixth month, and another at the approach of the eighth month.

September 15, I was summoned hurriedly by her servant, who told me Mrs. S. was dying. I found her comatose, with an imperceptible pulse, and still bleeding very freely from the vagina. On examination, I found the umbilical cord prolapsed about one inch in the vagina, also the os uteri rigid and dilated to about the size of a quarter of a dollar, with the placenta covering it. Detaching with the index finger sufficiently the placenta, I punctured the membrane, and, after the escape of the waters, tamponed. Half an hour later, on moving the tampon, the os was found partially dilated; the tampon was reinserted, and in forty minutes active labor came on, ending in speedy delivery, both mother and child eventually doing well.

23 N. Nineteenth St., Phila., Sept. 23, 1878.

A CASE OF MALARIAL CONVULSIONS.

BY J. F. WALSH, M.D.

EARLY in the morning of September 12, 1878, I was called to see J. C., æt. 2 years.

His mother stated that in the evening previous, at about six o'clock, he was seized with a severe chill, followed by a high fever, lasting during the greater part of the night; that he was very restless and had moaned and tossed about his bed until early morning, when, suddenly, at four o'clock he had a convulsion. This lasted for about fifteen minutes.

When I arrived, he was lying quietly in a semi-stupid condition. His face was sallow and pinched-looking; tongue blue and tremulous; forehead bathed in sweat. Pulse rapid (140 per minute) and feeble. No fever. Very thirsty. I ordered a solution of quinine and another of bromide of potassium; the former to be taken three times a day, the latter every two hours.

Returning again at twelve o'clock, I found him in a convulsion. It had just commenced. It lasted for about fifteen minutes, and was quite violent. This was the third one, the second having occurred, as I learned, at precisely eight o'clock; so that, very curiously, the attacks were exactly four hours apart. The mother noticed the periodicity of their occurrence as well as myself, and looked forward with dread to three o'clock for a repetition of the scene. I learned that he had not taken any of the medicine; he would spit it out as soon as administered. By holding his nose and pouring it well back into his mouth I managed to get some into his stomach, but not much. As he was very thirsty, I told the mother to mix the solution of the bromide with his drinking-water, and only give it to him when he seemed quite thirsty. In this way, as I was told at a subsequent visit, he took three of the doses of the bromide before three o'clock. At that time he had no convulsion, nor did he have any afterwards.

He appeared pretty well until the evening of the third day, when he had another chill, followed by a high fever, the temperature in the axilla being 105½°. The bromide was continued, and the solution of quinine was changed for pills, which he took more readily. That night he was very restless, and had slight twitchings of the muscles, but nothing more. In the evening of the fifth day he had another chill and fever, but much less severe. After this he was well.

In order to determine whether the convulsions might not be due to worms in the intestines, I gave him, on one of his well days, two good doses of santonin, followed by a cathartic. But, though he was purged very briskly, he passed no worms. His mother said that he had never had convulsions before.

Camden, N.J.

DEATH FROM FOUR HUNDRED AND EIGHTY GRAINS OF CHLORAL HYDRATE.

BY DR. J. J. CARROLL, U.S.A.,

Post Surgeon.

ABOUT 7.30 P.M. on the evening of the 22d of October I was hastily summoned to the bedside of T. R., æt. 50, who had taken four hundred and eighty grains of chloral hydrate, with suicidal intent, about fifteen minutes before my arrival. I found him in a totally unconscious condition, respiratory movements quick, but not laborious. The stomach-pump was immediately introduced, and four ounces of fluid removed, after which the organ was syringed out with nearly six ounces of water, and stimulants administered. In about ten minutes respiratory movements ceased. Artificial respiration was resorted to, and kept up with the aid of electricity until 11.30 P.M., when he expired. The patient had suffered for the past year from chronic alcoholism and from the habitual use of chloral and morphia.

Autopsy, twelve hours after death, revealed extensive fatty degeneration of heart, fat being mostly deposited in the auriculo-ventricular and interventricular sulci, and almost covering the right auricle. Fatty degeneration of liver, enlarged, and very anæmic. The other organs and viscera presented no particular points of interest, with the exception of the brain and lungs, which were very much injected, and two small, ulcerated patches situated in mucous membrane of stomach near pylorus.

Camp McDowell, Arizona, October 25, 1878.

NOTES OF HOSPITAL PRACTICE.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINIC OF PROF. ALONZO CLARK.

(Reported for the *Philadelphia Medical Times.*)

(Continued from p. 65.)

ENORMOUS HYPERTROPHY OF THE LIVER, WITH FIBROIDS.

THE next patient says he has a "large lump in his stomach," which he first noticed about seven weeks ago. Two or three weeks before that, however, he was obliged to give up work on account of pain and weakness. He says he has had no jaundice; but when I raise the eyelid, at the same time asking the patient to look down, I can detect a slight tinge of yellow about the conjunctiva. He has vomited but once during his illness, and then the matter ejected was of a greenish color. He has no appetite whatever, and it is only with great difficulty that he can force down any food at all. When he does take any, to use his own words, he is all pains, and has to keep walking all night. His stomach gets filled with wind, and he is continually belching it up.

On making an examination we find that the man has a large belly, and when palpation is resorted to there is something felt which is resisting to the touch and seems like a board. Following the edge of this, about the level of the umbilicus, across the abdomen from right to left, I find, about two inches to the left of the navel and a little above it, a lumpy mass about an inch in diameter, and around it several smaller ones in the same vicinity. These can be felt with great distinctness under the fingers when the patient takes a deep inspiration. The whole extent of the hard, resisting mass spoken of is enormous, as determined by percussion. There is dulness over the right side of the chest in front, from a finger's-breadth below the level of the nipple all the way down to below that of the umbilicus; though the dulness is less marked in the lower portion of the area, on account of the thinness of the edge of the mass. The same dulness also extends over a very considerable portion of the left side of the chest. Of course, what we feel here is the liver; for nothing else could extend continuously over the regions noted. Normally the left lobe of the liver should reach about four and a half inches beyond the median line, but in this case it extends fully two inches farther. On actual measurement we find that the liver covers an area which is ten and a half inches in its longitudinal diameter and twelve and a half inches in its transverse.

We now come to inquire what is the condition of the liver here. In the first place there is enormous hypertrophy of the organ; but, in addition to this, there is something else present. From the character of the tumor, as indicated by the physical signs, we determine that it must be one of three things, viz.:

1. Multiple abscesses.
2. Carcinomatous growths.
3. Fibrous growths.

But the masses felt are too large and too hard for abscesses. On the other hand, real cancer of the liver is distinctly cup-shaped, and I am therefore inclined to think that we have here fibroids, associated with hypertrophy of the organ. The fact that we have no more jaundice in this case is due, of course, to the small amount of compression to which the duct is subjected. The physical activity of which this patient is capable seems very remarkable in a man afflicted with a tumor of such great size as this.

The next question to be settled is, What can we do for him? In such a case as this it is proper enough to try the iodide of potassium, though I must confess that I have very little faith in it in this condition. The growth is entirely too extensive to be gotten rid of by counter-irritation, however persistently employed, and the most that I think we can expect here is to prevent, if possible, the further enlargement of the liver. To this end the patient should avoid the use of all kinds of fat as much as possible. On account of the difficulty which he experiences in taking solid food, he will probably have to confine himself principally to a liquid diet, and the best articles for him to depend on will be milk and beef-juice, with the white of egg, taken raw, from time to time. I do not understand exactly why he should have so much trouble in swallowing; but I suppose the œsophagus is probably pressed upon to a certain extent by the mass, the stomach being forced somewhat downward and backward. There is, however, no symptom of any stricture of the œsophagus.

NEURALGIA PRODUCED BY LEAD-POISONING.

Our last patient this morning is a painter by occupation, who is suffering from pain under the left shoulder-blade and extending down as far as the hip. He first noticed it about six months ago, and it has troubled him more or less ever since; though there have been intervals when he was entirely free from it. Before this pain in the back and side commenced, he states that he used to have pain in the stomach and dizziness in the head a good deal; but he never has any pain in the bowels now.

If this trouble in the side is not pleurisy, it is probably neuralgia; and it is the more likely to be of the latter character from the fact that it extends so far down. When the chest is stripped, I find a point of considerable dulness about the angle of the scapula, and slight dulness lower down as compared with the right side. On auscultation the respiration is found to be natural all the way down, but the voice becomes somewhat indistinct at a point about a finger's-breadth below the angle of the scapula. When I first listened to the chest I thought there was probably some pleuritic trouble; but there does not really seem to be any at present, though there can be no doubt that he has formerly had an effusion, and that the pleura has become permanently thickened in one part.

On examining the patient's mouth we find a line of brownish discoloration along the border of the gums, which ordinarily denotes absorption of lead; and, taking into consideration the man's occupation, I think it more than probable that we have here a case of lead-poisoning. It is true that he has not as yet, apparently, had colica pictonum; but he tells me that he suffers a good deal from constipation, and slow bowels are often the precursor of this. The best way to get rid of the neuralgia, which undoubtedly depends on the presence of lead in the system, is to eliminate the latter by means of iodide of potassium, and the patient should take ten grains of it three times a day. For the use of this agent in the treatment of lead-poisoning we are indebted to the researches of chemistry, and it was Melsens, of Brussels, who first directed attention to it. His experiments showed that a soluble compound was formed by the iodine with the lead in the system, and that this was gradually carried off from the system through the agency of the urine. They were afterwards fully confirmed by a series of observations made at the New York Hospital. In the urine of patients suffering from lead-poisoning, before the treatment was commenced, no trace of lead could be detected; but when the iodide of potassium was being taken, quite a large quantity could be found in it. The proper method of treatment for lead-poisoning is, therefore, by means of iodide of potassium.

TRANSLATIONS.

TREATMENT OF OVARIAN CYSTS BY THE ESTABLISHMENT OF A PERMANENT FISTULA WITHOUT GASTROTOMY.—In a recent communication to the Académie des Sciences (*Jour. des Sci. Méd.*, 1878, p. 455) M. Tripier suggests the following treatment for ovarian cysts where for any reason ovariotomy cannot be performed. He puts the cavity of the tumor in communication with the outer air by means of a fistula, and through this injects daily solutions of iodized water or soap, or solutions of tannic acid. Even cauterizations by means of the galvano-caustic may be made by this means, a long insulated sound being employed. In order to establish the fistula itself, M. Tripier employs the galvano-caustic by a method described at some length in the *Moniteur Thérapeutique*. He only claims a certain value for this treatment, which has served the purpose of relieving some apparently desperate cases. As to the final result, M. Tripier can make as yet no positive assertions, the time which has elapsed since his operations not having been sufficiently long. x.

TREATMENT OF SUPPURATIVE ADENITIS.—Dr. Obissier (*Jour. des Sci. Méd.*, 1878, p. 451; from *Bordeaux Médical*) punctures the gland with an exploratory trocar to the depth of seven or eight centimetres, and, having evacuated the pus, injects a four per cent. solution of carbolic acid. This he permits to remain, closing the puncture with a bit of silk, which does not swell and enlarge the opening. The injection is repeated by the same opening twice daily, and serum soon succeeds the pus. In favorable cases a week suffices for the cure. Where the abscess is on the point of opening, three weeks are required, but the result is favorable. x.

INFLUENCE OF CUTANEOUS STIMULATION ON THE CIRCULATION AND UPON CALORIFICATION.—From M. Joffroy's thesis upon this subject, which has been analyzed by *Le Progrès Médical* for September 14, we extract the following facts. After a physiological introduction, including an account of the part played by the skin in regulating the bodily heat, the author studies the effects upon the circulation of cutaneous stimulation. These effects may be local or general, the former consisting in vaso-motor phenomena, constriction and dilatation of the vessels at the point excited. They are due to a reflex action of the special vaso-motor centres, and probably also to an action of the peripheral nervous ganglia, as yet not perfectly demonstrated. The general effects are more complex, and the results of different investigations are contradictory in some points. The following, however, may be asserted. The nature of the stimulus makes but little difference; its extent and intensity, however, are important. After feeble stimulation, acceleration of the general circulation, together with a manifest constriction of the arteries, and even of the veins, is observed. So soon as the excitation is withdrawn, the vessels return rapidly to their normal condition.

When a feeble stimulation is continued for a long time, constriction of the arterioles is induced which may last for hours. (Such is the effect of local applications of moderate cold, astringents, etc., etc.) Energetic stimulation produces at first acceleration of the blood-current, with marked constriction in the calibre of the vessels: these phenomena rapidly giving place to slacking in circulation, with dilatation of the vessels. After very violent stimulation, the preliminary stage of contraction is not noticed, dilatation of the vessels being produced instantaneously and becoming excessive. Such are the results of experiments upon animals. With man, M. Joffroy thinks, the phenomena are more simple, and are confined to contraction of the vessels and increased rapidity of circulation.

The heart's action is also considerably modified by stimulation of the skin. Feeble stimulants cause accelerated action with strong contractions. First a brief acceleration is produced, then prolonged slowing. To explain these facts, which have long puzzled physiologists, M. Joffroy suggests that a slight stimulus affects only the corresponding portion of the vaso-motor centres, a medium one the neighboring vaso-motor centres, while a still stronger stimulus acts not only upon the spinal but on the central vaso-motor ganglia situated in the bulb. By this means general modifications of the circulation are produced, including acceleration of the movements of the heart. When the excitation is carried still one step further, the pneumogastric is acted upon, and slowing of the cardiac movements is brought about.

The modifications of calorification, induced by the application of external stimuli, are more difficult to explain. It may be asserted, however, that feeble stimulation raises the central temperature, while stronger stimulation lowers it. Vulpian's explanation, that the changes in the cutaneous circulation are the cause of this, seems most reasonable. It has never been demonstrated that the nervous system exercises any influence upon animal heat without the intervention of the vascular system. With regard to the effect of hydropathy, M. Joffroy thinks that, as ordinarily applied, this acts very much as most stimulants of medium intensity. Thus, under the influence of a douche or of a cold bath, arterial tension is elevated, and the heart loses several pulsations per minute. M. Joffroy does not believe in the local operation of stimulants at a distance. He concludes his thesis by a chapter on treatment, studying the effect of flagellations, sinapisms, ignipuncture, and finally hydrotherapy. x.

ROSEOLA FROM QUININE.—Dr. Grellety reports (*La France Méd.*, 1878, p. 586) the case of a patient who presented an eruption situated chiefly upon the limbs, both upper and lower, and characterized by a series of erythematous discs of variable size and without definite form, dull red in color, and disappearing under pressure. The eruption was almost perfectly symmetrical. It had been preceded by fever, but at the time of examination no disturbance of the general system was present. This eruption was very puzzling to the physicians who first examined it. It was not syphilitic roseola, since there had been no antecedent trouble of the kind, and since this is of a lighter color, the patches less extensive, and is seated by preference upon the trunk, which in the case under consideration was spared. The

patient had taken no copaiva, nor eaten shell-fish, nor had he eaten any other irritating food. After a time it transpired that he had taken eight grains of quinine on the previous evening, and later he informed Dr. Grellety that he always suffered such a rash after taking that medicine, which he had been accustomed to employ for the relief of obstinate intermittent fever. When he took the quinine just before the attack the roseola did not show itself; excepting when it was taken near the attacks the eruption followed. Dr. Grellety alludes to the fact that these scarlatiniform erythemata are not uncommon among workers in quinine-factories, and refers to the thesis of Grissac (No. 15, 1876), the recent work of Delthil, and the article of MM. Proust and Bergeron published in *Annales d'Hygiène*, July, 1876.

The conclusions drawn by Proust and Bergeron refer first to the eruption found in workers in quinine and sulphate of cinchona, which is eczematous. That produced by the internal use of the drug seems to assume the erythematous form.

The eruption from quinine, say MM. Proust and Bergeron, should not be considered professional, since it appears to attack only those who show a certain idiosyncrasy or susceptibility. One attack predisposes to subsequent ones. It only requires emollient treatment, but the cause must be removed. Grellety also quotes, from Edward Garraway, the case of a woman who, after taking quinine, was attacked with œdema of the face and limbs, accompanied by a scarlatiniform rash. When the patient was cured, Garraway again ordered a small dose of quinine, which was followed two hours later by the same eruption. Grissac gives the case of a woman working in green silk (*teinte de quinine*), who, together with her infant, suffered from a violent eruption.

Dumas (*Jour. de Thérap.*, 1876, p. 288) observed repeated attacks of urticaria accompanied by frightful itching following the use of quinine in small doses (fifteen centigrammes (two and a quarter grains) in three cases, thirty centigrammes in a fourth). In these cases reddish papules and erythematous patches were also noticed, together with coryza with abundant discharge. Later, the skin desquamated.

M. Grellety draws one practical conclusion from his observations. It is that in giving quinine to persons suffering from malaria who are liable to these eruptions the drug should only be given at a distance from the time of the attacks. x.

Treatment of Whooping-Cough by Tincture of Myrrh.—Dr. Campardon (*fils*) sends an account of several cases of whooping-cough coming under his care where tincture of myrrh was employed with remarkable success. The conclusions which he draws from his experience are that whooping-cough yields rapidly to tincture of myrrh in solution of quinine, the latter being a useful adjuvant on account of its tonic effect on the debility so often observed in this affection. This treatment does not preclude the employment of local or general measures for the tracheo-bronchitis, pulmonary congestion, etc. The dose is about fifteen drops of the tincture of myrrh every one or two hours. (*Bull. Gén. de Thérap.*, v. ii., 1878, p. 193.) x.

Cooling the Body by Local Refrigeration.—Clément, of Lyons (*Bull. Gén. de Thérap.*, v. 2, 1878, p. 229), suggests a sort of jacket of rubber to be placed around the waist and filled with cold water, which may be renewed from time to time. A thermometer may be kept in the rectum to measure the reduction of temperature. A similar procedure, useful in local inflammation of a limb, is to envelop this in a long rubber tube wound spirally about it, through which cold water is caused to circulate. x.

Batiator: a Substitute for Ipecacuanha.—Stanislas Martin, the well-known French pharmaceutist, calls attention (*Bull. Gén. de Thér.*, v. ii., 1878, p. 74) to a new Brazilian plant which is used by the natives in intestinal troubles, particularly in hemorrhoids. M. Martin asserts its efficiency in dysentery and also as an emetic. It is given in the Brazilian manner by making a decoction of the bruised root, to be drunk from time to time by the patient. M. Martin describes the appearance of the crude root, but gives no chemical data, nor does he touch upon the physiological action of this new drug. x.

Tuberculosis of the Thyroid Gland.—Chiari (*Cbl. f. Med.*, 1878, p. 412) has examined one hundred cases of chronic and acute tuberculosis of other organs, with a view to ascertaining the relative frequency of tuberculosis of the thyroid. This he found in seven cases,—a percentage of frequency about equal to that of tuber-

culosis of the uterus, which is not considered of very rare occurrence. Histologically, the tuberculous disease showed itself both in the form of grouped caseous centres (tuberculous infiltration) and in that of single miliary masses (tubercle-granules), the latter variety exclusively as a single symptom of a general miliary tuberculosis. x.

Influence of Constitutional Syphilis upon the Course of Gunshot Wounds.—The influence exerted by various constitutional diseases or conditions of the system upon the course of wounds has engaged the attention of several investigators during the last few years, and Verneuil's researches are almost classic. Recently, Düsterhoff (*Cbl. f. Chir.*, 1878, No. 38; from *Arch. f. Klin. Chirurgie*) has examined into the influence of syphilis upon the course of military injuries, with the following results. The infecting lesions of syphilis have no influence upon the course of wounds, though efflorescences may be determined in the neighborhood of the latter by irritation. Wounds in the immediate vicinity of the primary induration may heal by the first intention. Latent syphilis, early or late, does not, in general, influence the course of wounds: the rapid tissue-change during the process of healing seems to favor the continued latency of syphilis. In plastic operations, where signs of syphilis are still present, it is well to pursue an antisyphilitic treatment for a short time previous to the performance of the operation, in order to avoid slight loss of tissue about the point of operation. Tertiary forms of syphilis are, when progressive, unfavorable to the healing of wounds. Bone syphilis favors fractures and retards consolidation. Mercurialism is wrongly supposed to favor fractures. A carefully conducted mercurial course does not hinder the formation of callus in syphilitic subjects. In inveterate syphilis, as bone syphilis, wounds often lead (in badly-nourished individuals in particular) to a specific variety of gangrene which is brought to an end by moderate antisyphilitic treatment. Constitutional syphilis does not predispose to hemorrhage, and stands in no relation to pyæmia. x.

Infective Myositis.—Under this title, E. Galvagni (*Cbl. f. Chir.*, 1878, p. 635; from *Sardegna Medica*) alludes to a publication of Nicaise in which are described three cases of acute diffuse purulent myositis accompanied by great general disturbance and quickly followed by death. To these G. adds another case of his own, where a young strong person was attacked by pain in the joints of the left hand and elbow. Six days later, no trauma having occurred, the patient experienced severe pain in front of the left thorax. Leeches were ordered, and on the next day G. found no pain in the joints; left præcordial region very painful, swollen but not œdematous, skin saffron-yellow far beyond the boundary of the swelling. Percussion painful, yielded dulness in front, normal sound behind. Vesicular murmur and sounds of heart weakened. Temp. 39°.4. Temporary diagnosis, *pericarditis rheumatica*. Ice-bladders were ordered. The next day, marked feverishness; the tumor increased in size, no œdema. On the twelfth day, fluctuation; puncture; exit of much blood and little pus. On the fourteenth day a deep incision gave exit to a quantity of foul pus. The next day, subcutaneous emphysema; secondary opening. Hectic and foul purulent discharge continued until the thirtieth day, when the patient died. On examination, the pectoralis major was found mostly gangrenous, the portions remaining infiltrated with pus. The cavity of the abscess reached from the clavicle to the edge of the ribs. The third and fourth ribs were partly denuded of periosteum, the pleura-costalis here loosened and could be pitted with the finger. Nowhere perforation of the pleura. On the left side, recent fibrinous and serous pleuritis, left lung splenified. Pericardium in front inflamed and thickened, but the pericardial sac, heart, and vessels normal. Spleen enlarged but normal; liver showing a hazelnut-sized metastatic abscess. G. excludes phlegmon, and, in spite of the slow course of the disease, takes it for this peculiar form of myositis. He does not attribute the characteristic singular coloration of the skin to extravasation, but to the fever-process itself. x.

MM. Regnard and Richer have applied the "graphic method" of M. Marey to the analysis and record of the epileptiform seizures of hysterical women, with the result of showing that even here, where disorderliness seems to be paramount, there is a more or less orderly series of phenomena. The interesting paper which embodies the results of their observations is to be found in a late number of the *Revue Mensuelle de Médecine et de Chirurgie*.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, NOVEMBER 23, 1878.

EDITORIAL.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY.

THE opponents of the reformation in medical education at the University, when last year the astonishing success of the scheme was developed, asserted that the large classes were mainly drawn by the novelty and noise of the inauguration, and, pointing to the great falling off in the Harvard classes as they passed from the freshman to the senior year, predicted that with the University the loss would be still greater. So much was said that a good deal of anxiety was felt this fall by the friends of reform as to two points: First, would the number of new men entering be as large as last year? Second, would a fair proportion of the first-year men of last year continue their studies on into the second year?

It was known that about six per cent. of the class of 1880 failed in the examinations last spring, so that it was considered probable that the one hundred and thirty-two freshmen of last fall would be represented by one hundred and twelve this autumn. Instead of this, however, the second-year class now amounts to one hundred and twenty-six, or within one-half dozen of the full number who commenced their studies in 1877: so nearly is the loss made up by men who have brought up their studies during the summer, or who have entered the second-year University class from other institutions. It may be, therefore, considered settled that the attractions at the University are sufficient to hold its classes.

The number of medical freshmen who have entered this fall is one hundred and twenty-one, against one hundred and thirty at the same period last year. This, of course, is a slight falling off,—probably the result of the pressure of the times, or of some other general cause operative upon all medical schools. Certain it is that the class at the Jefferson College has diminished this year, as compared with last, more than has that of the University. The success of the new plan adopted by the University may therefore be considered established, and to those who originated and achieved it is due the praise of having boldly followed their moral convictions of right and by their intelligent courage secured a great practical success.

IT has been abundantly proven, by evidence which we have from time to time laid before our readers, that, abroad, homœopathy has suffered such decline that its leaders are forced to acknowledge its fading supremacy. The supposition has been that in this country the inevitable decadence had not set in. The fall of the tide is, however, becoming almost as apparent here as abroad, and it is plain that in the lifetime of some of our readers the delusion will have become historic.

We chronicled, not long since, the doings of the New York Homœopathic Society,—how, to use the expression of one of their members, adopted by the *New York Herald*, the majority had resolved that their lives were "living lies." Now we pause to note the paper of Dr. H. M. Paine, a prominent homœopathist of Albany (*Homœopathic Times*, October, 1878). In this he says, "We are forced to the conclusion that there is, in all probability, a gradual decrease in the number of homœopathic practitioners," and further asks the pregnant question, "If the powerful influences which are now in active operation continue unchecked, will not the efficiency and influence of the Homœopathic School, as a distinct body of medical men, be greatly impaired, and

its ultimate disintegration merely a question of time?" The natural reply in brief is:—Certainly.

THE third part of *The Journal of Physiology*, edited by Dr. Michael Foster, is now published. Already the influence of this periodical in stimulating in England the study of the most important of the fundamental sciences of medicine is apparent. It is plain that there will be no lack of first-class material for its pages; and we would urge our readers to sustain it by subscribing for it or by getting the book-clubs and public libraries of their neighborhoods to subscribe. It speaks well for the culture of the physician upon whose table it may lie, but it may not be a necessity in the office. Not to have it within reach, however, not to be able to glance over it as it appears, and read papers in it here and there, is a hardship which we trust no subscriber of the *Times* will suffer. Insist upon the libraries taking it.

LEADING ARTICLES.

METALLOSCOPY AND METALLOTHERAPY.

A LEADING article in the number of this journal for April 13 of the current year described, under the title of *Metallotherapy*, a curious and comparatively new method of treatment for that form of severe hysteria called hystero-epilepsy, in which, in addition to the epileptic seizures, anæsthesia or hemianæsthesia, amyosthenia and amblyopia, are frequent symptoms. This method, according to its chief exponent, M. Burq, consists essentially in the external or internal use of certain metals varying in each case according to the idiosyncrasy of the patient. The process of ascertaining this idiosyncrasy is called metalloscopy: it is performed by applying bits of any given metal to the skin of the arm on the anæsthetic side. If the patient is sensitive to the metal selected, a numbness is felt in the arm at the end of a few minutes, and, if the skin is pricked with a needle, sensibility is found to have returned, wholly or in part. If the metal tried does not produce this effect, another and another must be employed until finally the metal to which the patient is sensitive is ascertained. If the metal is kept applied to the skin, the effect produced by it wears away in time and the recurrent anæsthesia is more intense than previously. If, on the contrary, the metal be taken away so soon as sensibility returns, this persists for several hours or days and the improvement may become general. But sooner or later the patient relapses again. Occasionally what are termed "transfer phenomena" are observed. The effect of the metal placed upon the anæsthetic arm is to cause anæsthesia upon a corresponding patch of the unaffected arm, this condition appearing here *pari passu* with its disappearance upon the former locality. That form of amblyopia called achromatopsy, or narrowing of the field of vision with respect to colors, is also favorably influenced by this application of metals.

After metalloscopy has pointed out the appropriate application in a given case, then metallotherapy, either external or internal, comes into play. If external metallotherapy is to be employed, plates of the requisite metal are bound upon the skin; if internal metallotherapy, some salt of the metal is given by the mouth.

Although Burq's observations were first published twenty-five years ago, they did not attract much attention until recently, when the theory was taken up by the distinguished Prof. Charcot, who has investigated the subject with so much enthusiasm as to excite very general interest. The leading article referred to was based chiefly upon some lectures delivered by Charcot last winter; but since then new facts and investigations have been published, and it will be profitable to examine the subject once more in the light of these.

A committee of the Société de Biologie, consisting of MM. Charcot, Luys, and Dumontpallier, was appointed to investigate the subject, and in their report they state substantially the same facts as those above related. As to the cause of the phenomena undoubtedly produced, M. Burq advances the theory that superficial currents of electricity are produced by the contact of the metal (which is an amalgam) with the moist skin, that slight oxidation takes place, and that an electric current is thus

formed. He considers that these currents exercise an influence over the vaso-motor nerves, by means of which the blood-supply is restored to the anæmic parts and sensation re-established. Miss Hart,* who had an opportunity of watching a metalloscopic demonstration by M. Charcot, was struck by this change in the blood-supply. Before the application of the bracelet of metal a needle might be thrust through the arm on the anæsthetic side without eliciting a sign of pain or a drop of blood. A quarter of an hour after the application, a prick at the same spot would call forth a cry of pain and an involuntary start, and a puncture would cause the ordinary bleeding. MM. Charcot, Rabuteau, and Onimus lean towards Burq's interpretation of the metalloscopic phenomena, but with some reserve.

In addition, however, to the phenomena noticed by Burq, the commission has ascertained the fact that feeble electric currents may give rise to symptoms similar to those produced by the external application of metals, and that in this case also "transfer phenomena" may be observed. One of the most surprising results gained by the investigations of the commission was the persistent return of sensation in patients with whom the hemianæsthesia was due to an organic cerebral lesion.

A later report of this commission, published in the *British Medical Journal* (1878, vol. ii. p. 548), deals more particularly with M. Burq's proposition that "the external metallic aptitude being known, the same metal administered internally will determine similar results to those brought about by its external application." The experiments made by the commission were conducted with the greatest care, being performed upon the patients who had been the subjects of the metalloscopic examination. The hysterical condition of the patient was ascertained in the first place, and then the medicine was administered either by M. Charcot himself or by his internes. The results of these experiments were again confirmatory of Burq's views. The patients all did well under the appropriate metal.

The observations of other physicians in various localities, though sometimes confirmatory, do not, however, invariably uphold the judgment of the commission. M. Magnan at the Asile Sainte-Anne, and Dr. Westphal of Berlin, have been unable to gain the results obtained by Prof. Charcot. Dr. Hughes Bennett has obtained as good results in "metalloscopic" examinations with bits of wood as with plates of metal, while Dr. Thomas Inglis has obtained "transfer phenomena" by the use of a mustard plaster. Mr. Ernest Hart, in an editorial in the same number of the *British Medical Journal* from which we have taken most of the facts above mentioned, sums up the present state of our knowledge with regard to metallotherapy, and points out the extreme probability that sooner or later "expectant attention" or some similar explanation will be found for these phenomena. X.

* London Medical Record, 1877, p. 440.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a conversational meeting, held at the Hall of the College of Physicians, Philadelphia, October 23, 1878, Dr. Henry H. Smith, President of the Society, in the chair, twenty-one members were present. Drs. B. Trautman, L. D. Judd, John H. Williams, and J. R. F. Bell were introduced as members, and signed the Charter and By-Laws.

The question of the publication of the reports of these proceedings in various medical journals being introduced, it was decided, unanimously, that no report of the proceedings should be published except by the *Philadelphia Medical Times*.

The paper of the evening, upon the evils of Abuses of Medical Charities in Philadelphia, under the title of "Which is to Blame?" was read by Dr. W. R. D. Blackwood. This was accompanied by a map of the city of London, showing the ramifications of the public medical charity system in that city, and the abundance of medical dispensaries.

Dr. H. Leaman reported a case of zymotic disease (typhoid) acquired by a patient while in a hospital for a surgical injury.

On motion of Dr. Benjamin Lee, the paper was referred to the Committee on Hygiene and the Relations of the Profession to the Public, which has had the entire subject under consideration.

SCARLATINAL SORE THROAT.

Dr. F. Woodbury said that he had been interested in watching the course of an epidemic, or rather endemic, of sore throat, that he believed to be connected with scarlatinal poisoning. In a family living next door to a case of typical scarlatina, there were seven children, the oldest fifteen years, the youngest eight months.

The oldest, a girl, recently had a severe sore throat, lasting a few days; but, as she kept at her housework, and had no other symptoms, medical attendance was not sought. The next, a boy of twelve years, woke up one morning feeling badly. He could not sit up, and complained very much of his right forearm, which he had accidentally struck the day before. He had gone to bed in his usual health. When seen, the arm was swollen, but a contusion was the extent of the injury. A close examination, however, showed a few points of red eruption, resembling morbilli or rubeola, on both arms, but on no other portion of the body. The skin was dry and hot, pulse moderately accelerated; there was no coryza or conjunctival irritation. The fauces and pharynx were deeply congested and swollen, no false membrane, tonsils enlarged, some prominent glands below the angles of the lower jaw. Ordered to gargle with infusion of black tea, and apply bacon to the neck. Diet chiefly milk. A dose of magnesia was also directed to be given. A prescription was left for chlorate of potassa mixture, which, it was subsequently learned, was not filled. The boy was mildly delirious during the night, but was better the next day. On the third day he was up and about, with the fauces still purple, but less swollen, but he suffered no further inconvenience. At this visit the next younger child was found to have the same condition of the throat, although she had been well the day before. No eruption whatever could be detected. She also had fever, but less marked than her brother. The same treatment was instituted. This was on a Sunday, but something interfered to prevent the physician from calling again until Wednesday, when she was found convalescent, but her younger sister was on the lounge, suffering from the same train of symptoms. The urine had been examined, and found loaded with urates, but contained no albumen. The family being poor, no isolation of any efficient character could be carried out. The chlorate of potassa mixture was given to this child, who was the last one attacked. All recovered. The baby was not attacked.

DISINFECTION IN ZYMOTIC DISEASE.

In reference to protection from zymotic disease, Dr. Woodbury spoke of a tenement which, owing to its having no cellar and no drainage, was the home of diphtheria. He was cognizant of two outbreaks of the disease in this house. The place had been reported to the Board of Health, who had sent an ordinary non-medical inspector to examine the premises. The report was that the complaint was dismissed, that "no nuisance was found." The house is a trap for some poor persons who have children, the last family having deserted the place on account of the death of a child from malignant diphtheria. He inquired as to the powers of the Board of Health, whether it has the power to condemn a building and order it to be torn down as unfit for human habitation on account of its sanitary condition. Also, is there any machinery at the command of the profession through which premises affected by zymotic disease can be disinfected upon reporting them to the Board of Health?

The Chairman remarked that this subject, as it affected the public health, was an important one, and inquired of Dr. Welch, as physician to the Municipal Hospital, whether or not a public building had been erected for the purpose of disinfecting furniture by hot air.

Dr. W. M. Welch said that some years ago the Board of Health had erected a building for the purpose of disinfecting household goods and furniture, and had urged the people to remove all exposed articles to this establishment for disinfection by heat. This could be done by making application to the Board of Health. Where parties are able to pay, a charge is made for the service, but in poor cases nothing is charged. The Board of Health very frequently disinfected houses. Dr. Taylor, the Medical Inspector of the Board, would fully confirm this statement.

Dr. W. B. Atkinson said that the authorities are very slow in acting upon complaints of nuisances affecting the public health. The entire family of a fellow-member of this Society had recently suffered from an outbreak of diphtheria, which was traced to a defective drain in front of the house. A number of times this nuisance was complained of, and finally, with the greatest difficulty, and only as a personal favor, men were sent to repair it. Four children of this family suffered from malignant diphtheria, and one is now lying very ill. The County Society should take some action in this matter, and see that proper service is rendered. The Inspectors should have some special training for the work. If not medical men, they should, at least, understand the principles of hygiene.

Dr. J. H. Taylor, by invitation from the chair, said that the Board had no particular way of disinfecting premises. The insanitary condition of houses is generally due to imperfect trapping of the water-closet pipes. These traps become perfectly useless by "siphoning out," so that they offer no protection from the entrance of sewer-gases. In disinfecting rooms, free chlorine or sulphur fumes may be used. At the Lazaretto, chlorine is chosen for disinfecting vessels, but it is less adapted for dwellings. For drains and wells, sulphate of iron solution is generally employed.

The Board of Health, in his opinion, is not empowered to destroy property by tearing down infected premises, but it might board them up in case of an epidemic.

Dr. Atkinson referred to the vast amount of excrement which is exposed and spread out upon the truck farms in the lower part of the city, or, as it is called, "the Neck." The

air is constantly loaded with the stench from this ordure, and he was surprised that the inhabitants were not every one of them sick of some one of these "filth diseases." He was now watching the progress of an outbreak of diphtheria of a malignant type, and thought that the attention of the Board of Health should be directed to the matter. In reply to a question from the chair, he replied that he had not reported these cases to the Board of Health, as he had been only called in consultation.

The President said that every case of diphtheria must be reported to the Board of Health, under a penalty for neglect.

Dr. Hamilton believed that if filth was the cause of these diseases, they would be confined to the cities, whereas they are found throughout the country as well.

FRANK WOODBURY,
Reporting Secretary.

REVIEWS AND BOOK NOTICES.

ON THE SOURCE OF MUSCULAR POWER. ARGUMENTS AND CONCLUSIONS DRAWN FROM OBSERVATIONS UPON THE HUMAN SUBJECT UNDER CONDITIONS OF REST AND OF MUSCULAR EXERCISE. By AUSTIN FLINT, M.D. New York, D. Appleton & Co, 1878. 12mo, pp. 103.

Dr. Flint's essay, which appeared in the *Journal of Anatomy and Physiology* for October, 1877, has now been reprinted, with various errors and inaccuracies of a typographical sort corrected. The object of the experiments here recorded has been to test the accuracy of assertions made in various quarters that the muscular system is nothing more than a sort of machine, which takes up the food and converts it into force without itself being in any way affected. Dr. Flint's experiments were made upon Weston, the well-known pedestrian, and he here gives very full details of his own investigations as well as those of others, his final conclusion being that the loss of nitrogenous material proceeds for the most part from the waste of muscular tissue, and not from the mechanical transformation of food into energy without the body. In other words, the direct source of muscular power is to be looked for in the muscular system itself. The exercise of muscular power immediately involves the destruction of a certain amount of muscular substance, of which the nitrogen excreted is a measure.

PHYSICS OF THE INFECTIOUS DISEASES. By C. A. LOGAN, A.M., M.D. Chicago, Jansen, McClurg & Co. 12mo, pp. 212.

After a chapter of introductory remarks upon the atmosphere as a medium of disease-transmission, a classification of the diseases to be considered, and a discussion of the geography of disease, the author proceeds, in Part II. of this little work, to consider the physical aspect of the coast of South America. In Part III. he treats of the medical aspect of the same locality; in Part IV., of the physics of specific causation; in Part V., of the therapeutics of the infectious diseases; in Part VI., of the question of energy as related to general disorders. Under these somewhat vague and various heads Dr. Logan treats of—almost everything. Earthquakes, trade-winds, ozone, the forces of nature, oxygen and electricity, the "volcanic" (*sic*) pile, vital force, the flora and fauna of the past, the contagious bioplast, the infectious molecule,—nothing seems too small or too great for our author's attention. Our wonder in looking over the index was how such a small volume could possibly contain an account of all these interesting topics; but they are all there. Dr. Logan gives a "little dab" at each theme as it passes, and the result is a farrago of disjointed thoughts on every conceivable subject to be found in the current scientific and medical literature of the day. Should Dr. Logan's work reach a second edition, we might be permitted to suggest the following quotation from a well-known "juvenile" by Lewis Carroll, which might serve as preface and index combined:

"'The time has come,' the walrus said, 'to talk of many things;
Of ships, and shoes, and sealing-wax, of cabbages and kings,
And why the sea is boiling hot, and whether pigs have wings.'"

A. V. H.

ON GIANT URTICARIA. By J. L. MILTON. Pamphlet, pp. 19.

ATLAS OF DISEASES OF THE SKIN. Part I. By BALMANNO SQUIRE, M.B. London, J. & A. Churchill, 1878.

The writers of these brochures possess certain faults of style in common which are, unfortunately, too frequently met with in English medical writers, and which, we venture to think, must seriously impair the value and influence of their writings. One of these is verbosity. In these days of prolific writing and publishing, when each mail brings its teeming burden of books and journals, taxing the reader's interest and attention to the utmost, it behooves one who has somewhat to tell, to "say his say" in the briefest and most pointed manner. But nothing can restrain the exuberant pen of Mr. Squire, and, as he always has some new and original ideas, we must, perforce, take them in the form in which he presents them to us. Mr. Milton is less of a trial in respect to verbosity, but in his description of lesions he appears to prefer "plain English" to scientific accuracy. "Lumps" and "swellings," no doubt, describe the lesions of urticaria, but, like the "thingamabob" and "what-d'ye-call-'em" with which in every-day life we eke out poverty of descriptive epithet, they are liable to the imputation of vagueness. But we must hasten to add

to these ungrateful criticisms the expression of our interest in the subject-matter of the pamphlets before us. Mr. Milton gives a description of several cases of urticaria different, we believe, in their appearance from any hitherto described, chiefly in the enormous size which the lesions present and in the severity and obstinacy of the disease. The treatment which cured these cases is given with some detail, and an admirable chromo-lithograph of the lesions presents their appearance vividly before the eye.

Mr. Squire's Atlas has as yet advanced only as far as the first part, containing an account of cases of "*nævus vascularis planus*" and of "*psoriasis* (*diffusa*)." The excellent chromo-lithographs are on a large scale, but showing only a small part of the surface, so as to preserve the octavo form of the volume. The picture of the nævus is particularly fine, and we should greatly like to have seen a representation of the case when cured. To have seen this we would willingly have sacrificed the picture of psoriasis as cured, this being not infrequently met with in every-day practice. But hypercriticism is not called for in the case of these plates, and we trust Mr. Squire will speedily give us further instalments of his eminently practical Atlas.

A. V. H.

THE CELL DOCTRINE. By JAMES TYSON, M.D. Second Edition. Lindsay & Blakiston, Philadelphia, 1878.

Directly after the appearance of the first edition of this book, we took occasion to praise it as a clear and concise explanation and statement of a somewhat involved and certainly very perplexing subject. So far as we saw, the medical press both in this country and in England were accordant in their expressions of its value. No wonder, then, that the author says in his preface to the new edition that he has been stimulated to renewed effort by the flattering reception of the first edition. The present volume bears the impress of this zeal. It is fuller and more complete than its predecessor, and is at the same time equally clear. We predict that it will receive, as it deserves, the persistent support of the profession.

A GUIDE TO THE PRACTICAL EXAMINATION OF THE URINE. By JAMES TYSON, M.D. Second Edition. Lindsay & Blakiston, Philadelphia, 1878.

We do not wonder at the acuteness of the attack which carried off so rapidly the first edition of this deservedly popular book. In our hands it has proved a thoroughly satisfactory guide, and we can commend it afresh to our readers, with the statement that in its new birth it is better than as it was.

SICKNESS is said to be still triumphant in the new British dominion, Cyprus.

GLEANINGS FROM EXCHANGES.

THE VENTILATION OF BEDROOMS (*The Lancet*, October 19, 1878).—Although the blood-circulation is less active during sleep than when awake, it is of considerable importance to health that bedrooms should be well ventilated. The sleeper, like a bed-ridden person, is entirely dependent upon the atmosphere supplied to him for the means of carrying on the chemical purification and nutrition of his body. He must breathe the air that surrounds him, and he does this for a lengthy portion of each period of twenty-four hours, although it is probable that in a large majority of cases the atmosphere has become so deteriorated by the expiration of carbon and the emanations from the body generally, that if the senses were on the alert some change would be sought as a mere matter of preference. When a person places himself in a condition to take in *all* air, without being able to exercise any control over its delivery, he ought to make sure that the supply will be adequate, not merely for the maintenance of life, but for the preservation of health. If a man were to deliberately shut himself for some six or eight hours daily in a stuffy room, with closed doors and windows (the doors not being opened even to change the air during the period of incarceration), and were then to complain of headache and debility, he would be justly told that his own want of intelligent foresight was the cause of his suffering. Nevertheless, this is what the great mass of people do every night of their lives with no thought of their imprudence. There are few bedrooms in which it is perfectly safe to pass the night without something more than ordinary precautions to secure an inflow of fresh air. Every sleeping-apartment should, of course, have a fireplace with an open chimney, and in cold weather it is well if the grate contains a small fire, at least enough to create an upcast current and carry off the vitiated air of the room. In all such cases, however, when a fire is used it is necessary to see that the air drawn into the room comes from the outside of the house. By a facile mistake it is possible to place the occupant of a bedroom with a fire in a closed house in a direct current of foul air drawn from all parts of the establishment. Summer and winter, with or without the use of fires, it is well to have a free ingress for pure air. This should be the ventilator's first concern. Foul air will find an exit if pure air is admitted in sufficient quantity, but it is not certain pure air will be drawn in if the impure is drawn away. So far as sleeping-rooms are concerned, it is wise to let in air from without. The aim must be to accomplish the object without causing a great fall of temperature or a draught. The windows may be drawn down an inch or two at the top with advantage, and a fold of muslin will form a "ventilator" to take off the feeling of draught.

This, with an open fireplace, will generally suffice, and produce no unpleasant consequences, even when the weather is cold. It is, however, essential that the air outside should be pure. Little is likely to be gained by letting in fog or even a town mist.

OVARIOTOMY.—Dr. Keith has a paper in the *British Medical Journal* for October 19 upon the results of ovariotomy before and after antiseptics. Without antiseptics his results over fourteen years gave a mortality of almost 1 in 7: of the five years preceding the use of the spray, nearly 1 in 10½; of the last of these five years, 1 in 21. He has now done forty-nine operations as carefully as possible under the spray. Two of the first eight died, the rest—forty-one in number—all recovered.

After discussing the results obtained by other operators, he comes to the following conclusions:

"What, then, have we gained by antiseptics in ovariotomy? 1. It has lessened the mortality. Take the results of the German surgeons. After the first trials, even, the mortality fell at once from fifty per cent. to twenty: thirty lives saved by the spray alone out of every hundred. When I add that my last forty-one have all recovered, enough has been said. No such successful series was ever got in the old way. Once Mr. Wells had twenty-seven successful operations in succession. But look at that wonderful list of eight hundred operations. How often did it happen that there was a run of deaths, too many and occurring too often to be merely accidental,—frequently four or five in succession, once seven, then ten out of twelve, etc. With antiseptics there will be no *per contra*, and such a run of deaths will come no more. 2. This increased safety will encourage medical men to recommend earlier operation, which certainly few of them now do. That very large tumors and bad adhesion increase the mortality there can be doubt. For the last seven years, no death happened to me in non-adherent tumors, and the deaths that occurred during that period were, with a single exception, in cases when the local difficulties prolonged the operation for two hours or more. Certainly early operation, when a cyst bursts and fluid is thrown out in a large quantity into the peritoneum, cannot be too strongly urged. 3. With antiseptic ovariotomy the drainage-tube will not be nearly so often required. I do not think that it can be altogether dispensed with. No one has practised drainage so much as I have, yet I know well that it sometimes cannot be used without risk. Some patients give simply serum from the irritation of the tube; in others, after a short time the tube becomes enclosed in thick lymph, and it sometimes gets choked with this. In such circumstances, there must be a risk of some folds of intestine adhering at angles when the tube is removed. I have several times seen decided inconvenience arise from this, but never any fatal obstruction. With antiseptics the tube can be removed much earlier. Drainage is certainly a great trouble both to the patient and attendant. 4. Convalescence is rendered easier. 5. Antiseptics are a great comfort and relief to the operator. Speaking for myself, the difference is enormous: ovariotomy is not the operation it was fifteen or sixteen years ago, or even two years ago. The best results in the old way were difficult to get, and no one knows, but he who has experienced it, the anxiety and weariness of spirit with which the struggle against the blood-poison was carried on in the early days of ovariotomy. It is something to think that no one will again have to suffer these experiences in the same degree, and it almost makes one envy the younger ovariotomists to whom the way in these days is made easy."

CONGENITAL EXTRUSION OF ABDOMINAL VISCERA; RETURN; RECOVERY (*British Medical Journal*, October 5, 1878).—Mr. William Fear reports the following interesting case. He was summoned to attend a woman in labor with her sixth child, at full time. The case was natural, and over within an hour after his arrival. The child, a large female, cried lustily in and after the birth; and something unusual at the umbilicus attracted his attention. The cord was very large through its abdominal half, and œdematous, especially so at its attachment to the umbilical ring, where it presented also a funnel-shaped condition. Through a long slit in the side of this funnel protruded *all the intestines*,—the small intestines, practically the whole of the colon, and the pyloric end of the stomach. The viscera were found to escape through an umbilical ring of about an inch and a half in diameter, to enter the expanded base of the cord, and then to emerge from its split side. With care he spread out the extruded mass. The small intestines were empty,—at first bright and pink colored, but becoming congested and blue. The large intestine contained meconium, which could be recognized and pressed along by the finger. The stomach alone was distended. The mesenteric vessels were beautifully displayed when spread out over the belly-wall, as was also the circulation along the greater curvature of the stomach. A finger passed into the empty abdominal cavity explored it easily,—the aorta behind, and the deep epigastrics in front, pulsating on the finger. With caution and difficulty, he slowly restored the entire contents from the last to the first, being embarrassed by the thrust made upon the bowels when the infant cried. Then, lifting by the cord the umbilical region into a cone, he encircled it with a skein of thread, strangulating a narrow ring of skin, and with it as much abdominal wall as possible around the umbilicus. In three hours, the child sucked vigorously; in three more, the bowels acted. No tympanites or vomiting ensued. At the end of a week, satisfactory progress had been made, and there had

been no bowel-difficulty. At the end of a fortnight the infant was still doing well; the ligature and included tissues were separating. Within six weeks, cicatrization was completed. The child is now thriving and perfectly well.

MISCELLANY.

FATAL OCCURRENCE ON BOARD A LEITH STEAMER.—A private letter from Saigon, China, of date August 17, states that the following terrible occurrence took place in that port on board a Leith steamer early in the month. A Chinaman went down the hatchway on the cargo, and at once dropped down dead; an Englishman followed to render assistance, and he shared the same fate; a third, a fourth, and a fifth successively descended, and all—one Chinaman and four Englishmen—succumbed to the mysterious and unknown influence. It turned out that the cause of the fatality was carbonic acid gas, generated from a wet cargo of pepper and some kind of bark. The cargo, from Singapore, had been on board only three or four days.—*British Medical Journal.*

CARBOLIC ACID POISONING.—A case of death produced in forty-five minutes by half an ounce of commercial carbolic acid is reported in the London *Lancet* for October 12, 1878. Complete collapse was caused in less than five minutes.

DEATH IN THE TURKISH BATH.—In the *British Medical Journal* of October 12 is reported a case of sudden death in a Turkish bath, affirmed to have been produced by congestion of the lungs caused by the excessive heat.

DR. LOUIS E. GILLIARD, Librarian of the Stillé Medical Library of the University of Pennsylvania, died November 3, of malignant scarlatina, contracted from a patient. He was much esteemed by his professional friends, and was a young man of decided promise.

MR. JOSEPH LISTER has been appointed to the position of one of her majesty's surgeons-extraordinary, rendered vacant by the death of Mr. Hilton.

NOTES AND QUERIES.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—In your issue of the 12th inst. there is an editorial on the subject of the preliminary course of training for intending medical students, inaugurated by the Johns Hopkins University, and which the writer has apparently mistaken for a part of the curriculum of the medical school of the University. This mistake is, I fear, in part due to the short title, "Preliminary Medical Course," printed at the head of our circular; but it is difficult to see how any one could read the pamphlet through without perceiving that the proposed course is an independent one, provided for lads who leave school with a fair general education and who intend afterwards to study medicine. The very words quoted by the writer in the *Philadelphia Medical Times* seem to me to indicate this sufficiently.

"The Johns Hopkins University will organize at the commencement of the session of 1878–79 a course of instruction preliminary to the study of medicine. This course will have the object of giving the student a liberal education, but one rather scientific than literary, and including a thorough knowledge of the structure and functions of the human body in health."

This proposed course, moreover, has no exclusive relationship to the future medical school of the Johns Hopkins University, but it is offered to those who wish afterwards to study medicine in any medical school. What the requirements for admission to our own medical school may be it is impossible for me or any one else at present to say; but I for one hope that no one will be admitted to it who has not had at least such a preliminary education as that afforded by the course in question, with the previous knowledge of English, Latin, and mathematics required before entering upon it. That such a student has not had a liberal education calculated to fully awaken and exercise his mental faculties, I cannot admit.

Ever since our University has been opened we have received applications for admission—to its scientific departments especially—from students from all parts of the country, who either intend to take up the medical profession or who have already studied one or two sessions in a medical school; in many cases from men also who have just taken the M.D. degree. These candidates have imagined, rightly or wrongly, that the instruction which a university with endowed laboratories can give on such subjects, so essential as a foundation of scientific medicine, is likely to be more complete than that which can be obtained at most medical schools, where the professors are often men whose time is largely otherwise occupied, and in which practical laboratory instruction is, with a few exceptions (among which the University of Pennsylvania holds a prominent place), very deficient.

The Johns Hopkins University has hitherto always endeavored to do what it could for men coming to it in this way, and will, I trust, continue to do so for the future. Every year since it opened we have had some of them following its chemical and biological courses; and this year, in addition, weekly demonstrations in physiology have been provided for students from the two medical schools in Baltimore.

We have never felt, however, that the aid thus given was entirely satisfactory. Those who came from various parts to study chemistry were nearly always deficient in such knowledge of physics, and often also of elementary mathematics, as was necessary for a successful pursuit of chemistry; and those who applied for physiological instruction too often showed a deficient knowledge of the necessary preliminaries of physics and chemistry. Many, too, were ignorant of French and German, without a knowledge of which no advanced study in any of those subjects can be carried on properly.

Influenced by these facts, we have instituted a course for intending medical students, fitted, as we hope, to the needs of ordinarily intelligent lads, who leave school at about sixteen, after having acquired there a fair general education. This education we propose to supplement with, among other things, instruction in French and German (when necessary), mechanics, physics, chemistry, physiology, comparative anatomy, logic, and psychology; all fit subjects of a liberal education. The only technical subject proposed to be taught in this course is human anatomy, and this we have put in for two reasons: first, because we believe the details of human anatomy to be best studied in connection with the science of comparative anatomy; and in the second place, to lighten somewhat the labors of the medical course proper, which, without it, are amply sufficient to occupy a man for the three years, which are probably all that he will be able to give to it,—a time which, according to our critic, is amply sufficient. Probably such anatomical instruction as is contemplated in the preliminary course would require to be supplemented in the medical school by some teaching of surgical anatomy, which would, I believe, be best given in connection with practical instruction in operative surgery on the dead body.

The student who has gone through our preliminary course will, on entering a medical school, be able to devote his main energies, during his stay there, to (quoting the words of our critic) the "proper medical science and art," instead of spending a great portion of his time in acquiring a hasty knowledge of such subjects as chemistry and physiology, which, although necessary to the medical man who is more than an empiric, are yet entirely independent sciences, with *raisons d'être* entirely apart from medicine.

A further great gain would be in the study of such subjects from a general scientific stand-point, and not, as is too commonly the case in medical schools, in the emasculated form of chemistry and physiology for medical students.

What the course adopted in our own proper medical school will be, I am, of course, quite unable to say; so far as I know, no decision whatever has as yet been arrived at on that subject. I earnestly hope, however, that, in it, that part of a medical student's time which is now commonly employed in learning those things which he ought to have learned before going near a hospital at all, will be given up to the study of pathology and pathological anatomy (that is to say, to the anatomy and physiology of the diseased body), the physiological action of drugs, the applications of chemistry and physiology to sanitary science, of these and psychology to medical jurispru-

dence, and so on. And further, that laboratories and endowed chairs will be founded for such of these subjects as require them, so that the professors may be relieved from the cares of practice, and be able to devote their whole time and energies to the subjects they teach.

Supposing the proper medical course to extend through three years, the student at the end of it will have devoted six years altogether to preparation for his profession. From a pretty thorough knowledge of English medical schools and a somewhat less extensive one of those in Germany and in this country, I have no hesitation in saying that he will then have had a general and professional education not inferior to that required from candidates for the M.D. degree by any institution in the world.

The writer of the article in the *Philadelphia Medical Times*, influenced, no doubt, by a laudable prejudice in favor of his own school, suggests (although he is careful not to definitely state) that those who fulfil the requirements for entry to it will be superior in general education to those who follow our plan. But, as the acquirements demanded for entrance to the medical courses of the University of Pennsylvania are less than those demanded from candidates for admission to our preliminary course, outsiders have a difficulty in seeing the grounds of his confidence.

This letter has attained such unfortunate length that I can only very briefly refer to two other points. The writer who criticises us suggests at the end of his article that men who were prepared to make sacrifices for the highest opportunities will pass by the plan at present proposed. This seems to imply that the University authorities propose to veto any studies outside those prescribed as a minimum. So far is this from being the case that suggestions are made in the circular in question that students should pass the general matriculation examination of the University, and take a B.A. degree by adding some other branch of general education to those prescribed in the course preliminary to medical studies. The subjects prescribed in the latter we feel to be essential, and to give a man enough to do in three years. But if he has more time to give he will be doubly welcome; and as to the higher mathematics and Greek, on which our critic lays stress, the names of the professors in those departments are a sufficient guarantee that in them at least "the highest opportunities" will be afforded to those who are able and willing to make the necessary sacrifices.

Finally, as to the degree of Bachelor of Medicine, which, we have suggested, might perhaps be given to those who have satisfactorily passed through the course preliminary to medical studies: that suggestion was merely thrown out with the view of eliciting the opinion of the medical profession on the point, and will, I have no doubt, not be carried into effect should that opinion in general be adverse to it.

BALTIMORE, October 21, 1878.

[Some of the positions taken by Prof. Martin are strong, but, on the whole, we think his reply justifies our original editorial. The University of Pennsylvania, being dependent upon the receipts from classes, has to adopt a minimum medical course as essential, whilst it recommends those pecuniarily able to do more. Johns Hopkins University is differently situated, and ought to demand the maximum of all, and furnish the best possible education. This, to our thinking, it does not do. "A fair general education" is a very small basis to raise the proposed superstructure on. A higher standard of preliminary education seems essential, if the Johns Hopkins course is to be what it might be.—ED. *P. M. T.*]

IS NOT THE CODE OF ETHICS TOO LIGHTLY OBSERVED?

There is nothing more common among medical men than the violation of the code of ethics, especially the clause forbidding the insertion of cases in the daily papers.

The young physician when starting out in his vocation has impressed upon his mind, from lectures received on the subject, that strict adherence to medical ethics is indispensable to the dignity of his profession. But after a short experience he is led to believe that it is more often preached than practised, as very few men seem to abide by it. Such cases as the following are frequently seen.

1. John A., son of Mr. A., met with a sad accident on Friday last, by chopping off his thumb. Dr. Blank was called, and now John is doing as well as can be expected considering the serious nature of the injury.

2. Dr. ——— reports the following fractures occurring last week: Miss A., fracture of right clavicle; Frank B., fracture of right femur; John C. (four miles south), fracture of left tibia; Mrs. D. (north of town), fracture of radius and ulna.

3. Dr. ——— reports the following births for the month of August; Mrs. H., a son; Mrs. I., a daughter; and so on, enumerating eight or ten births.

The above are specimens of quackery as practised by thorough graduates of medicine. The two latter examples are actual cases, coming from two distinct physicians, members of county medical societies, and also of the American Medical Association. It will be observed that the men practising such charlatanism are the ones who succeed in obtaining an extensive practice. The papers are read by the mass of people, who see that Dr. ——— is having a large experience from the number of cases reported, while no mention is made of other physicians, who perhaps are far more deserving of the public patronage, but, owing to their adherence to the code of ethics, keep silent. The code of ethics ought to be acknowledged by all regular physicians, but it is not; and how is the matter to be remedied?

The American Medical Association surely ought to be free from any member guilty of such conduct, and charges of that character are too seldom brought before the Society, and if they are, they have so much other pressing business that little attention is paid to such matters.

Yours,

OCCASIONAL.

1511 ARCH STREET, October 21, 1878.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

MR. EDITOR,—Permit me to make some correction of the statement of your correspondent, Dr. Richardson, contained in your number of May 11, in relation to homœopathy. Dr. Richardson has evidently a very slight acquaintance with the subject which he attempts to criticise, otherwise he would know that whilst all homœopathic physicians acknowledge the supremacy of the homœopathic law of cure, nevertheless in the practical application of this law there prevails great difference of opinion.*

The greatest majority of homœopathic practitioners have given their testimony in favor of highly diluted remedies, in many cases, but they do not consider them as the *sine qua non* of homœopathic practice. They follow the views of Hahnemann, originally promulgated by him in this respect. If very sensitive persons can in some cases be influenced in *health* by these doses, this is by no means the general rule for the experimentation with remedies. The Vienna Homœopathic School has always used the largest doses for their provings. I speak now of the organism in a state of *health*. For the diseased condition, specific remedies acting directly on the affected organs, the smallest doses will be often sufficient to effect a cure, although larger doses in case of necessity are by no means excluded. Let it once for all be understood that the homœopathic practice does not merely consist in giving infinitesimal doses, but in the correct application of the specific remedy according to the principle of the homœopathic law. This similarity will in some cases be more analogous to the symptoms, in others to the pathological state of the case under consideration as far as this can correctly be ascertained.

* Herbert Spencer, in his work on education, makes the following remarks about Pestalozzi, which are also applicable to Hahnemann. "That tendency which mankind constantly exhibit along with which any great truth has been bequeathed—their liability to prostrate their intellects before the prophet and swear by his every word—their proneness to mistake the clothing of the idea for the idea itself, renders it needful to insist strongly upon the distinction between the fundamental principles of the Pestalozzian [Hahnemannian] system and the set of expedients devised for its practice, and to suggest that while one may be considered established, the other is probably nothing but an adumbration of the normal course," etc.

Very respectfully,

C. NEIDHARD.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM NOVEMBER 3 TO NOVEMBER 16, 1878.

TILTON, H. R., MAJOR AND SURGEON.—Leave of absence extended two months. S. O. 245, A. G. O., November 12, 1878.

YEOMANS, A. A., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one month, on Surgeon's Certificate of Disability, with permission to leave the Department. S. O. 229, Department of Texas, October 29, 1878.

KING, J. H. T., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty at Fort McIntosh, Texas. S. O. 238, Department of Texas, November 8, 1878.

FINLEY, J. A., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Fort Elliott, Texas, and assigned to duty at Fort Wallace, Kansas. S. O. 203, Department of the Missouri, November 6, 1878.